

Application No.: 10/562,438

Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (Original): A non-aqueous electrolyte secondary battery comprising: a positive electrode; a negative electrode; a separator interposed between said positive electrode and said negative electrode; a non-aqueous electrolyte; and a porous insulating film adhered to a surface of at least one selected from the group consisting of said positive electrode and said negative electrode,

said porous insulating film comprising an inorganic oxide filler and a film binder,

wherein the ratio R of actual volume to apparent volume of said separator is not less than 0.4 and not greater than 0.7, and

wherein said ratio R and a porosity P of said porous insulating film satisfy the relational formula:

$$-0.10 \leq R - P \leq 0.30.$$

2-10 (Canceled)

11 (Previously Presented): The non-aqueous electrolyte secondary battery in accordance with claim 1,

wherein the amount of said film binder contained in said porous insulating film is not less than 1 part by weight and not greater than 4 parts by weight per 100 parts by weight of said inorganic oxide filler.

12 (Previously Presented): A non-aqueous electrolyte secondary battery comprising: a positive electrode; a negative electrode; a separator interposed between said positive electrode

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and said negative electrode; a non-aqueous electrolyte; and a porous insulating film adhered to a surface of at least one selected from the group consisting of said positive electrode and said negative electrode,

said porous insulating film comprising an inorganic oxide filler and a film binder,

wherein said inorganic oxide filler comprises polycrystalline particles,

wherein said polycrystalline particles each comprise a plurality of primary particles that are diffusion-bonded together,

wherein the amount of said film binder contained in said porous insulating film is not greater than 4 parts by weight per 100 parts by weight of said inorganic oxide filler, and

wherein 90% cumulative volume pore size D90 in a pore size distribution of said porous insulating film measured by a mercury intrusion porosimeter is not less than 0.15 μm .

13 (Previously Presented): The non-aqueous electrolyte secondary battery in accordance with claim 12,

wherein said primary particles have an average particle size of not greater than 3 μm .

14 (Previously Presented): The non-aqueous electrolyte secondary battery in accordance with claim 12,

wherein the average particle size of said polycrystalline particles is not less than twice the average particle size of said primary particles, and not greater than 10 μm .

15 (Currently Amended): A non-aqueous electrolyte secondary battery comprising: a positive electrode; a negative electrode; a separator interposed between said positive electrode and said negative electrode; a non-aqueous electrolyte; and a porous insulating film adhered to a surface of at least one selected from the group consisting of said positive electrode and said negative electrode,

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said porous insulating film comprising an inorganic oxide filler and a film binder,
wherein a void capable of retaining said non-aqueous electrolyte is formed on an
adhering interface where said porous insulating film adheres to said electrode surface, and
the amount of said film binder contained in said porous insulating film is not greater than
4 parts by weight per 100 parts by weight of said inorganic oxide filler,

wherein a void size distribution of said adhering interface measured by a mercury
intrusion porosimeter has a peak in a region ranging from 1 to 4 μm , and
the electrode surface to which said porous insulating film adheres has an average surface
roughness Ra of 0.1 to 1 μm .

16 (Canceled)

17 (Canceled)

18 (Previously Presented): The non-aqueous electrolyte secondary battery in accordance
with claim 15,

wherein the amount of said film binder contained in said porous insulating film is not less
than 1 part by weight per 100 parts by weight of said inorganic oxide filler.